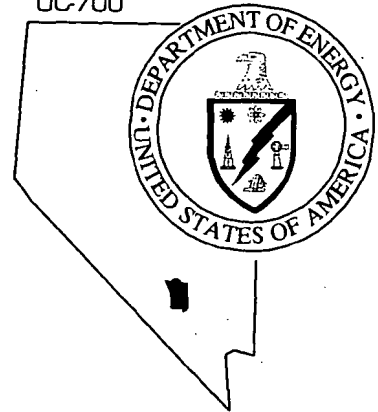


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Rulison Site Semiannual
Groundwater Monitoring Report

September 1998

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RULISON SITE SEMIANNUAL GROUNDWATER MONITORING REPORT

DOE Nevada Operations Office
Las Vegas, Nevada

September 1998

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**RULISON SITE
SEMIANNUAL GROUNDWATER MONITORING REPORT**

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Off-Sites Subproject

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9/24/98

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9/24/98

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List of Acronyms and Abbreviations

AEC	U.S. Atomic Energy Commission
Austral	Austral Oil Company
BTEX	Benzene, toluene, ethyl benzene, and xylenes
COPC	Constituent(s) of potential concern
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
ft	Foot (feet)
H ₂ SO ₄	Sulfuric acid
HCl	Hydrochloric acid
HNO ₃	Nitric acid
km	Kilometer(s)
m	Meter(s)
mi	Mile(s)
ml	Milliliter(s)
MS/MSD	Matrix spike/matrix spike duplicate
NPDES	National Pollutant Discharge Elimination System
QAPP	Quality Assurance Project Plan
QC	Quality control
RCRA	<i>Resource Conservation and Recovery Act</i>
RPD	Relative percent difference(s)
SGZ	Surface ground zero
TPH	Total petroleum hydrocarbons
TDS	Total dissolved solids
TSS	Total suspended solids
U	Non-detects
VOC	Volatile organic compound
°C	Degree(s) Celsius
°F	Degree(s) Fahrenheit
µg/L	Microgram(s) per liter
µS/cm	Microsiemen(s) per centimeter

1.0 Introduction

This report summarizes the results of the May 1998, semiannual groundwater sampling event for the Rulison Site, which is located approximately 65 kilometers (km) (40 miles [mi]) northeast of Grand Junction, Colorado. Following remediation of the drilling effluent pond, groundwater was sampled from wells around the pond quarterly for two years to show that no contamination was migrating from the pond. At the completion of the two years of quarterly sampling a closure report was prepared and submitted to the Colorado Department of Public Health and Environment for approval. Pending approval of the closure report (DOE, 1998), the frequency of groundwater sampling was changed to a semiannual basis. This is the first semiannual groundwater sampling report. The drilling effluent pond was used to store drilling mud during drilling of the emplacement hole for a 1969 gas stimulation test conducted by the U.S. Atomic Energy Commission (AEC) (the predecessor agency to the U.S. Department of Energy [DOE]) and Austral Oil Company (Austral).

1.1 Site Location

The Rulison Site is located in the north $\frac{1}{2}$ of the southwest $\frac{1}{4}$ of Section 25, Township 7 South, Range 95 West of the 6th Principal Meridian, Garfield County, Colorado, approximately 19 km (12 mi) southwest of Rifle, Colorado, and approximately 65 km (40 mi) northeast of Grand Junction, Colorado (Figure 1-1). The site is situated on the north slope of Battlement Mesa on the upper reaches of Battlement Creek, at an elevation of approximately 2,500 meters (m) (8,200 feet [ft]). The valley is open to the north-northwest and is bounded on the other three sides by steep mountain slopes that rise to elevations above 2,927 m (9,600 ft).

1.2 Project Description and Background

Project Rulison, a joint AEC and Austral experiment, was conducted under the AEC's Plowshare Program to evaluate the feasibility of using a nuclear device to stimulate natural gas production in low-permeability, gas-producing geologic formations. The experiment was conducted on September 10, 1969, and consisted of detonating a 40-kiloton nuclear device at a depth of 2,568 m (8,426 ft) below ground surface. Natural gas production testing was conducted in 1970 and 1971 (AEC, 1973).

The site was deactivated by the AEC and Austral in 1972 and abandoned in 1976. Cleanup associated with site abandonment consisted of removing all remaining equipment and materials,

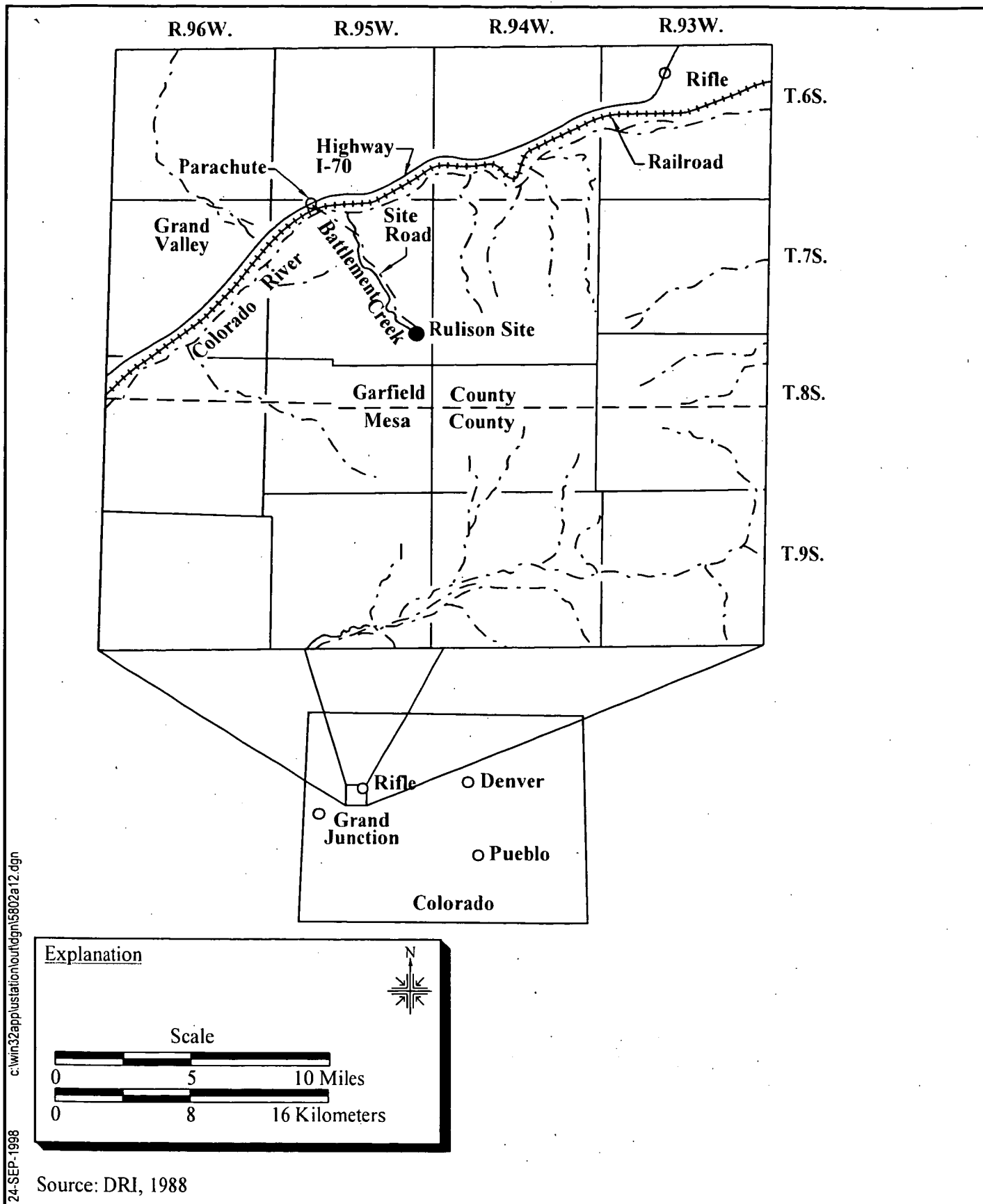


Figure 1-1
Rulison Site Location Map

plugging the emplacement (R-E) and reentry (R-EX) wells (Figure 1-2), backfilling the mud pits adjacent to the R-EX well, removing the tritium-contaminated soils, and conducting extensive surface soil sampling and analysis to characterize the radiological condition of the site.

Detailed descriptions of the site deactivation and abandonment activities and radiological characterizations are presented in the *Rulison Site Cleanup Report* (AEC, 1973), the *Project Rulison Well Plugging and Site Abandonment Final Report* (ERDA, 1977), and the *Rulison Radiation Contamination Clearance Report* (Eberline, 1977).

The drilling effluent pond is an engineered structure located approximately 400 m (1,312 ft) north-northwest of the surface ground zero (SGZ) emplacement well R-E (Figure 1-2). The pond covers approximately 0.5 hectare (1.2 acres) as measured at the top of the berm; it is triangular in shape; and it is approximately 6 m (20 ft) deep from the top of the berm to the pond bottom. The drilling effluent pond was used to store nonradioactive drilling fluids generated during drilling of well R-E, the device emplacement hole. The drilling fluids consisted of bentonite drilling mud that may have contained various additives, such as diesel fuel and chrome lignosulfonate, used to improve drilling characteristics. Most of the drilling wastes were removed from the pond when the site was cleaned up and decommissioned in 1972; however, some drilling fluid was left in the pond. At the request of the property owner, the pond structure was left in place following completion of site decommissioning and was subsequently converted by the property owner to a freshwater holding pond containing aquatic vegetation, amphibians, and stocked rainbow trout.

In 1994 and 1995, four pond sediment sampling events were conducted to evaluate the extent of residual contamination from drilling wastes remaining in the pond. Concentrations of diesel-range total petroleum hydrocarbons (TPH); benzene, toluene, ethyl benzene, and total xylenes (BTEX compounds); barium; chromium; and lead were found in pond sediment samples and soil samples taken from an old settling basin located adjacent to the pond. Based on the results of the 1994 and 1995 sampling events, the DOE decided to conduct a voluntary cleanup action at the pond to reduce the levels of TPH and chromium in pond sediments and soils in and adjacent to the pond. The cleanup was completed in November 1995. One upgradient monitoring well, RU-03 (see Figure 1-2), and four downgradient monitoring wells (RU-05, RU-06A, RU-07, and RU-08) were installed around the pond to monitor the effectiveness of the cleanup. A detailed description of pond cleanup and well installation is presented in the *Rulison Site Corrective Action Report* (DOE, 1996b).

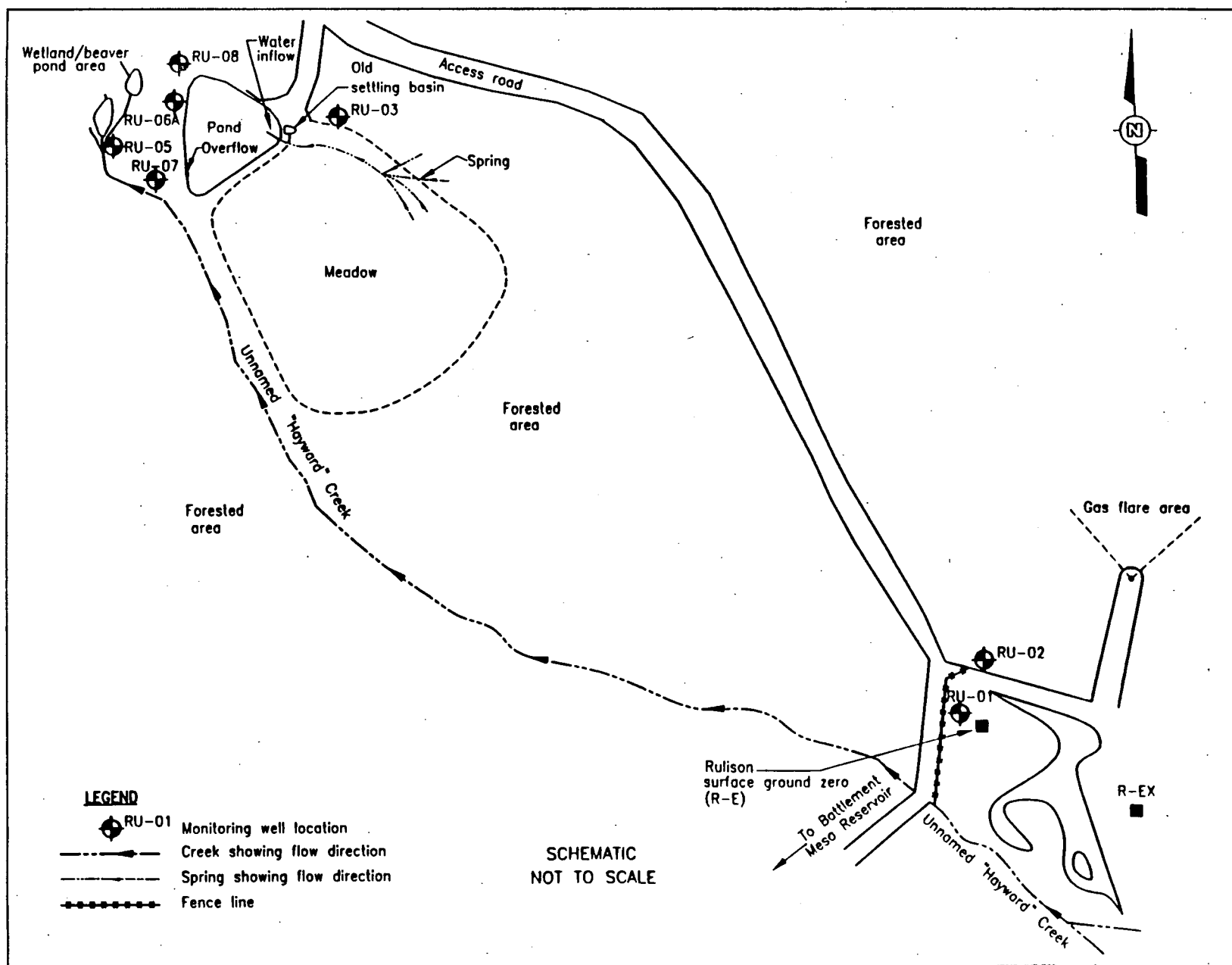


Figure 1-2
Monitoring Well Locations

1.3 Summary of Site Activities

The May 1998 semiannual groundwater sampling event was conducted on May 13, 1998, by personnel from IT Corporation representing the U.S. Department of Energy, Nevada Operations Office. All five of the wells had a sufficient volume of water to be sampled. The weather was partly cloudy with temperatures ranging from 10 to 15 degrees Celsius (°C) (50 to 60 degrees Fahrenheit [°F]). There were occasional wind gusts to approximately 15 miles per hour, and some patches of icy snow on the ground.

A high volume of surface runoff was observed entering the pond from the south. Springs and seeps on the southeast side of the pond were also actively discharging to the pond.

Well RU-03 was found unlocked when it was to be sampled. However, the U.S. Environmental Protection Agency (EPA) was on location on May 12 conducting their Annual Long-Term Hydrologic Monitoring Program. Conversations with EPA personnel on May 12 indicated that wells RU-01, RU-02, and RU-03 were all locked when the EPA arrived on location. It was assumed that they left well RU-03 unlocked.

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2.0 Sampling and Analysis Procedures

The May 1998 semiannual groundwater sampling event was conducted in accordance with the *Rulison Drilling Effluent Pond Site Long-Term Groundwater Monitoring Plan* (DOE, 1996a), the *Rulison Site Quality Assurance Project Plan, Rulison Site, Colorado* (QAPP) (DOE, 1996c), and as described in this section. The National Pollutant Discharge Elimination System (NPDES) permit number COG-310084, that originally guided the discharge of water from the Rulison Pond during activities in 1996, was canceled by the State of Colorado Water Quality Control Division at the request of the DOE (see Appendix A). The official letter canceling the NPDES permit was dated November 18, 1997; however, a cancellation was granted verbally on October 28, 1997 (Appenzeller-Wing, 1997).

2.1 Groundwater Level Measurement

Before purging and sampling activities at each well began, the depth to groundwater and total depth of the well were measured. This information was used to evaluate any changes to groundwater flow direction since the previous sampling event.

2.2 Well Purging

Monitoring wells were purged of stagnant groundwater using disposable bailers. The pH, temperature, and conductivity of the groundwater were taken prior to discharging any water to the surface and then taken at regular intervals thereafter. Purging was considered complete when the groundwater quality parameters stabilized over at least two consecutive readings of pH, temperature, and conductivity. The pH values ranged from 6.8 to 7.6. Temperature of the groundwater ranged from 2.0 to 8.6°C (35.6 to 47.5°F), and electrical conductivity ranged from 277 to 787 microSiemens per centimeter (µS/cm). Water was discharged to the ground surface in the same manner as in previous sampling events.

2.3 Sample Collection and Handling

Groundwater samples were collected from wells RU-03, RU-05, RU-06A, RU-07, and RU-08 with disposable bottom-emptying bailers. For quality control (QC) purposes, one duplicate sample, one matrix spike/matrix spike duplicate (MS/MSD), and an equipment rinse blank sample were collected during the sampling event. In addition, a trip blank accompanied all volatile organic samples in their shipping container. Samples were containerized and preserved

as specified in Table 2-1. All containers were certified clean by the laboratory and remained sealed until ready for use.

2.4 Sample Analysis

The groundwater samples from the May 1998 semiannual sampling event were analyzed for the parameters listed in Table 2-1. This table is modified from the one included in the *Rulison Drilling Effluent Pond Site Long-Term Groundwater Monitoring Plan* (DOE, 1996a), and has the same parameters as collected during the fourth quarter 1997 sampling event, but the analytical program was modified to incorporate the most up-to-date EPA analytical method in SW-846 (EPA, 1990). Parameters analyzed for include the constituents of potential concern (COPCs) identified for the drilling effluent pond sediments (TPH; BTEX; and barium, chromium, and lead analyzed through *Resource Conservation and Recovery Act* [RCRA] total metals). RCRA dissolved metals with mercury were also analyzed for, in order to compare the results with total metals.

Table 2-1
Rulison Site Groundwater Monitoring Program
Sample Container, Preservation, and Analytical Requirements

Parameter	Analytical Method	Sample Container	Minimum Amount of Sample Required	Holding Time ^a	Preservative
BTEX	SW-846 ^b 8260B	Glass with Teflon™- lined cap	2 x 40 ml	14 days	pH <2 with HCl Cool to 4°C
TPH (diesel fraction)	SW-846 8015B	Amber Glass	1 liter	14 days	pH <2 with H ₂ SO ₄ Cool to 4°C
RCRA ^c Total Metals with Mercury	SW-846 6010B/ 7470A	Polyethylene	1 liter	180 days	HNO ₃ to pH <2 Cool to 4°C, unfiltered
RCRA ^c Dissolved Metals with Mercury	SW-846 6010B/ 7470A	Polyethylene	1 liter	180 days	HNO ₃ to pH <2 Cool to 4°C, filtered
Total Dissolved Solids (TDS)	EPA 160.1 ^d	Polyethylene	100 ml	7 days	Cool to 4°C
Total Suspended Solids (TSS)	EPA 160.2 ^d	Polyethylene	100 ml	7 days	Cool to 4°C

^aHolding time calculated from verified time of sample collection. Holding time for mercury is 28 days.

^bU.S. Environmental Protection Agency, SW-846, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, 3rd Edition (EPA, 1990)

^c*Resource Conservation and Recovery Act* (CFR, 1998)

^dU.S. Environmental Protection Agency, *Methods for Chemical Analysis of Water and Wastes* (EPA, 1983)

HCl = Hydrochloric acid

H₂SO₄ = Sulfuric acid

HNO₃ = Nitric acid

ml = Milliliter(s)

°C = Degree(s) Celsius

3.0 Analytical Results

Analytical results for the May 1998 semiannual sampling event, for the pond cleanup COPCs (diesel-range TPH, BTEX, barium, chromium, and lead) are presented in Table 3-1. Samples were collected from wells RU-03, RU-05, RU-06A, RU-07, and RU-08. Well RU-07 had sufficient water volume to be sampled for the first time during this sampling event. Appendix B contains the laboratory report of the results for all analyses for the May 1998 semiannual sampling event. A review of the analytical data for laboratory method blanks was performed to ensure that the COPC concentrations reported for the groundwater samples were representative of groundwater quality rather than laboratory contamination. The following sections provide a discussion of the May 1998 semiannual groundwater sampling results.

3.1 BTEX

Benzene, toluene, ethyl benzene, and xylene were not detected in any of the samples collected for the May 1998 semiannual sampling event.

3.2 Diesel-Range TPH

Diesel-range TPH was not detected in any of the groundwater samples from the May 1998 semiannual sampling event.

3.3 Inorganics

Rulison's May 1998 semiannual groundwater monitoring samples were analyzed for RCRA total metals with mercury (Table 3-1). RCRA dissolved metals with mercury were also analyzed for during this sampling event, as was done during the fourth quarter 1997. The sample for RCRA dissolved metals was run through a 0.45 micron filter prior to preservation. By comparing the RCRA total metals with the RCRA dissolved metals, it can be determined if the COPCs are dissolved in the groundwater or are associated with suspended solids. Table 3-2 compares the RCRA total metals results with the RCRA dissolved metals results.

The May 1998 semiannual groundwater samples for RCRA total metals from all wells, except RU-05, contained barium at levels ranging from 60 to 120 micrograms per liter ($\mu\text{g/L}$). In the RCRA dissolved metals samples for all wells, barium ranged from 26 $\mu\text{g/L}$ to 110 $\mu\text{g/L}$. Barium was not detected in well RU-05 in RCRA total metals, but was detected in RU-05 in the RCRA dissolved metals analysis.

Table 3-1
Rulison Site Groundwater Analytical Results
Semiannual Sampling, May 1998 (All results in µg/L)
 (Page 1 of 3)

Well	First Quarter 1996	Second Quarter 1996	Third Quarter 1996	Fourth Quarter 1996	First Quarter 1997	Second Quarter 1997	Third Quarter 1997	Fourth Quarter 1997	May 1998
TPH - Diesel									
RU-03	100U	94U	500U	500U	1000U	1000U	1000U	940U	100U
RU-05	100UJ	94U	NS	NS	NS	1100U	1000U	NS	100U
RU-06A	100U	71R	500U	500U	1000U	1000U	1000U	940U	100U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	100U
RU-08	100UJ	94U	NS	NS	NS	1300U	1000U	940U	100U
Benzene									
RU-03	0.5U	0.5U	1U	1U	1U	0.50U	2.5	1.0U	1.0U
RU-05	0.5U	0.5U	NS	NS	NS	0.50U	1.0U	NS	1.0U
RU-06A	0.5U	0.5U	1U	1U	1U	0.50U	1.0U	1.0U	1.0U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	1.0U
RU-08	0.5U	0.5U	NS	NS	NS	0.50U	1.0U	1.0U	1.0U
Toluene									
RU-03	0.5U	0.5U	1U	1U	1U	1.0U	3.9	1.0U	1.0U
RU-05	0.5U	0.5U	NS	NS	NS	1.0U	1.0U	NS	1.0U
RU-06A	0.5U	0.5U	1U	1U	1U	1.0U	1.0U	1.0U	1.0U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	1.0U
RU-08	0.5U	0.5U	NS	NS	NS	1.0U	1.0U	1.0U	1.0U
Ethyl benzene									
RU-03	0.5U	0.5U	1U	1U	1U	1.0U	1.0U	1.0U	1.0U
RU-05	0.5U	0.5U	NS	NS	NS	1.0U	1.0U	NS	1.0U
RU-06A	0.5U	0.5U	1U	1U	1U	1.0U	1.0U	1.0U	1.0U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	1.0U
RU-08	0.5U	0.5U	NS	NS	NS	1.0U	1.0U	1.0U	1.0U

Table 3-1
Rulison Site Groundwater Analytical Results
Semiannual Sampling, May 1998 (All results in µg/L)
 (Page 2 of 3)

Well	First Quarter 1996	Second Quarter 1996	Third Quarter 1996	Fourth Quarter 1996	First Quarter 1997	Second Quarter 1997	Third Quarter 1997	Fourth Quarter 1997	May 1998
Xylenes (total)									
RU-03	0.5U	0.5U	1U	1U	1U	1.0U	2.0U	2.0U	1.0U
RU-05	0.5U	0.5U	NS	NS	NS	1.0U	2.0U	NS	1.0U
RU-06A	0.5U	0.5U	1U	1U	1U	1.0U	2.0U	2.0U	1.0U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	1.0U
RU-08	0.5U	0.5U	NS	NS	NS	1.0U	2.0U	2.0U	1.0U
Barium									
RU-03	120	110	105	135	86	90.3	148.0	155	60
RU-05	360	120	NS	NS	NS	89.8	425.0	NS	28U
RU-06A	120	120	119	116	118	130	114.0	113	120
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	100
RU-08	350	140	NS	NS	NS	146	127.0	116	110
Chromium									
RU-03	10U	10U	1.5U	6.7	2.2	5.0	9.8	9.3	7.0U
RU-05	24	10U	NS	NS	NS	1.8	39.2	NS	7.3U
RU-06A	10U	10U	1.5U	1.5U	2.5	1.0U	1.0U	4.3	7.0U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	7.0U
RU-08	10U	10U	NS	NS	NS	3.1	1.0U	1.3	7.0U
Lead									
RU-03	5.6U	3U	1.5	2.3U	2.0U	2.5	6.4	5.3	32U
RU-05	13U	3U	NS	NS	NS	3.1	18.5	NS	32U
RU-06A	3U	3U	0.8U	0.8U	2.0U	2.0U	2.0U	2.9	32U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	44U
RU-08	12U	3U	NS	NS	NS	3.5	2.5	2.0U	64U

Table 3-1
Rulison Site Groundwater Analytical Results
Semiannual Sampling, May 1998 (All results in µg/L)
 (Page 3 of 3)

Well	First Quarter 1996	Second Quarter 1996	Third Quarter 1996	Fourth Quarter 1996	First Quarter 1997	Second Quarter 1997	Third Quarter 1997	Fourth Quarter 1997	May 1998
Selenium									
RU-03	16	14	2.8U	2.8U	4.0U	3.0U	3.0U	4.0U	50U
RU-05	7.2	6	NS	NS	NS	3.0U	3.0U	NA	39U
RU-06A	12	20	2.8U	2.8U	4.0U	3.0U	3.0U	4.0U	87U
RU-07	NS	NS	NS	NS	NS	NS	NS	NS	39U
RU-08	12	22	NS	NS	NS	3.0U	3.0U	5.0U	90U

Values in italics are for the dissolved fraction.

Values in bold are the May 1998 sampling event results.

NS = Well dry - no sample collected

U = Analyte not detected above the specified value

R = Quality control indicates that the data are unusable (compound may or may not be present).

J = Reported value is estimated.

Table 3-2
Rulison Site Comparison of Analytical Results for
RCRA Total and Dissolved Metals with Mercury*
May 1998
 (All results in µg/L)

Well	RCRA Total Metals with Mercury (unfiltered)	RCRA Dissolved Metals with Mercury (filtered)
RU-03	barium 60	barium 56
RU-05	barium 28U	barium 26
RU-06A	barium 120	barium 110
RU-06A Duplicate	barium 120	barium 110
RU-07	barium 100	barium 110
RU-08	barium 110	barium 100

*Constituents that were not detected were not listed.
 All May 1998 Analytical Results are included in Appendix B.

For RCRA total metals, the laboratory detected chromium at 7.3 µg/L in well RU-05; lead in samples from well RU-07 at 44 µg/L, and RU-08 at 64 µg/L; and selenium in well RU-03 at 50 µg/L, RU-06A at 87 µg/L, RU-06A duplicate at 54 µg/L, and RU-08 at 90 µg/L. During tier I and tier II reviews, these detections were all qualified as non-detects (U) since these values are less than 5 times the concentrations found in the laboratory's continuing calibration/method blank. Arsenic was not detected in any of the RCRA total metals samples from all five wells:

For RCRA dissolved metals, the laboratory detected arsenic at 93 µg/L in well RU-06A; lead was detected in well RU-03 at 52 µg/L, in RU-06A at 48 µg/L, and the RU-06A duplicate at 34 µg/L. These results were also qualified as non-detects (U) during tier I and tier II reviews since these values are also less than 5 times the concentrations found in the laboratory's continuing calibration/method blank.

Table 3-2 compares the analytical results for both the RCRA total metals and RCRA dissolved metals. Only barium, was detected in the filtered and unfiltered samples. This indicates that the barium is dissolved in the groundwater. Concentration trends of inorganics detected in the groundwater at the Rulison Site are addressed in the *Rulison Site Surface Closure Report, July 1998* (DOE, 1998).

3.4 Groundwater Flow

A shallow depth to groundwater was encountered during the May 1998 semiannual groundwater sampling event. Groundwater depth and elevation data for the drilling effluent pond monitoring wells are presented in Table 3-3. Based on the groundwater elevation data, it appears that groundwater flow during the May 1998 sampling event was generally towards the northwest. Under this flow condition, Well RU-03 is upgradient from the pond; and Wells RU-05, RU-06A, RU-07, and RU-08 are downgradient from the pond.

**Table 3-3
Rulison Site Groundwater Elevations
May 1998**

Well	First Quarter 1996	Second Quarter 1996	Third Quarter 1996	Fourth Quarter 1996	First Quarter 1997	Second Quarter 1997	Third Quarter 1997	Fourth Quarter 1997	May 1998
Depth to Water (from top of casing)									
RU-03	10.56 m (34.65 ft)	6.81 m (22.33 ft)	12.94 m (42.44 ft)	12.93 m (42.42 ft)	10.90 m (35.75 ft)	3.82 m (12.52 ft)	8.68 m (28.48 ft)	10.78 m (35.36 ft)	1.72 m (5.65 ft)
RU-05	2.35 m (7.71 ft)	1.96 m (6.42 ft)	Dry	Dry	Dry	1.75 m (5.75 ft)	2.79 m (9.15 ft)	Dry	1.75 m (5.74 ft)
RU-06A	4.74 m (15.56 ft)	4.38 m (14.38 ft)	5.55 m (18.20 ft)	4.72 m (15.5 ft)	5.66 m (18.56 ft)	3.79 m (12.45 ft)	4.67 m (15.32 ft)	5.12 m (16.8 ft)	3.95 m (12.97 ft)
RU-07	Dry ^a	Dry	Dry	Dry	Dry	Dry	Dry	Dry	2.51 m (8.25 ft)
RU-08	1.78 m (5.85 ft)	1.70 m (5.58 ft)	Dry	Dry	Dry	1.49 m (4.9 ft)	1.84 m (6.04 ft)	2.05 m (6.73 ft)	1.55 m (5.10 ft)
Groundwater Elevation									
RU-03	2444.29 m (8019.33 ft)	2448.05 m (8031.65 ft)	2441.92 m (8011.54 ft)	2441.92 m (8011.56 ft)	2443.96 m (8018.23 ft)	2451.04 m (8041.46 ft)	2446.17 m (8025.5 ft)	2444.08 m (8018.62 ft)	2453.13 m (8048.33 ft)
RU-05	2433.95 m (7985.41 ft)	2434.35 m (7986.70 ft)	< 2433.39 m ^b (< 7983.55 ft)	< 2433.39 m ^b (< 7983.55 ft)	< 2433.39 m ^b (< 7983.55 ft)	2434.55 m (7987.37 ft)	2433.51 m (7983.97 ft)	< 2433.39 m (< 7983.55 ft)	2434.55 m (7987.38 ft)
RU-06A	2430.10 m (7972.78 ft)	2430.46 m (7973.96 ft)	2429.30 m (7970.14 ft)	2430.12 m (7972.84 ft)	2429.19 m (7969.78 ft)	2431.05 m (7975.89 ft)	2430.18 m (7973.02 ft)	2429.72 m (7971.54 ft)	2430.89 m (7975.37 ft)
RU-07	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	< 2438.22 m (< 7999.40 ft)	2438.74 m (8001.12 ft)
RU-08	2429.05 m (7969.33 ft)	2429.13 (7969.60 ft)	< 2429.01 m (< 7969.18 ft)	< 2429.01 m (< 7969.18 ft)	2428.61 m (7967.88 ft)	2429.34 m (7970.26 ft)	2428.99 m (7969.14 ft)	2428.63 m (7967.94 ft)	2429.12 m (7969.57 ft)

^a Well had less than 1 foot of water, so it was considered dry and was not sampled.

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4.0 Quality Control Results

Field and laboratory QC sample requirements and acceptance criteria are specified in the Rulison QAPP (DOE, 1996c). The laboratory narratives for the May 1998 sampling analytical results are included in Appendix B. These narratives provide a summary of the results for laboratory QC samples required under the various analytical methods used for the project. Since field methods require additional QC not applicable to the laboratory, the following sections describe the results for field sampling under the Rulison QAPP (DOE, 1996c).

4.1 Field Duplicate Samples

Field duplicate samples are used to monitor the variability associated with sample collection procedures and to provide estimates of the total sampling and analytical precision. A duplicate sample was collected from Well RU-06A during the sampling event. The relative percent differences (RPDs) between analytes detected in the original sample and the same analytes detected in the associated field duplicate sample were calculated and compared against the precision acceptance criteria specified in the Rulison QAPP (DOE, 1996c). The sample and sample duplicate results, calculated RPDs, and precision acceptance criteria are presented in Table 4-1.

Only barium was detected in the RCRA total metals analysis of RU-06A sample (RUW00130), and in the duplicate sample (RUW00132). The RPD for barium is zero because the amount detected is the same; 120 µg/L for both samples.

The results for RCRA dissolved metals for barium is also the same (110 µg/L) in samples RUW00130 and RUW00132; therefore the RPD is also zero.

4.2 Equipment Rinsate Blank Samples

Equipment rinsate blanks are used to monitor potential cross-contamination associated with inadequate equipment decontamination procedures. At Rulison, the possibility of cross-contamination between wells was eliminated by using new, dedicated, disposable bailers at each well. An equipment rinse blank was prepared by pouring deionized water over and through a new, dedicated, disposable bailer. This water was then drained into appropriate sample bottles, which were labeled, packaged, and placed in a cooler with ice. The equipment rinsate sample was analyzed for the same constituents as the groundwater samples, TPH- Diesel, BTEX, and

Table 4-1
Rulison Site Groundwater Monitoring Program
Duplicate Sample Comparison
May 1998
(All results in µg/L)

Analyte	Well RU-6A			RPD Acceptance Criterion
	Sample RUW00130	Sample Duplicate RUW00132	Relative Percent Difference (RPD)	
TPH	100U ¹	100U	ND ⁴	± 40
Benzene	1.0U	1.0U	ND	± 11 to 24
Toluene	1.0U	1.0U	ND	± 11 to 24
Ethyl benzene	1.0U	1.0U	ND	± 11 to 24
Xylenes	1.0U	1.0U	ND	± 11 to 24
Arsenic ²	65U	65U	ND	± 20
Barium ²	120	120	0	± 20
Barium ³ (filtered)	110	110	0	± 20
Cadmium ²	2.6U	2.6U	ND	± 20
Chromium ²	7.0U	7.0U	ND	± 20
Chromium ³ (filtered)	7.0U	7.0U	ND	± 20
Lead ²	32U	32U	ND	± 20
Lead ³ (filtered)	48U	34U	ND	± 20
Mercury ²	0.077U	0.075U	ND	± 20
Selenium ²	87U	54U	ND	± 20
Silver ²	4.5U	4.5U	ND	± 20

¹ Analyte not detected above the specified value

² Sample result from RCRA total metals. This sample was not filtered.

³ Sample result from RCRA dissolved metals.

⁴ Not Determined, since RPD of a non-detect result cannot be calculated

- inorganics. In the equipment rinsate blank, sample number RUW00134, lead was detected at 44 µg/L and selenium was detected at 110 µg/L for RCRA total metals analysis, while 73 µg/L of lead was detected for RCRA dissolved metals analysis. Tier I and tier II analysis determined that for RCRA total metals analysis, the 44 µg/L of lead and the 110 µg/L of selenium could be qualified as "U," since the value was less than 5 times the concentration in the laboratory's continuing calibration/method blank. Lead was detected at a concentration of 48 µg/L in the laboratory preparation blank analyzed with the dissolved metals samples. Because of this and because the rinsate blank was the only sample in which lead was detected, it is likely that the dissolved lead detected in the equipment rinsate blank was the result of laboratory contamination rather than contamination from groundwater at the site.

The 73 µg/L of lead detected for RCRA dissolved metals analysis was qualified as a "B," meaning that the reported value is greater than or equal to the instrument detection limit (IDL) but less than the contract-required detection limit (CRDL). It could not be qualified as a "U," since the value was greater than 5 times the contamination in the laboratory's continuing calibration/method blank.

4.3 Trip Blank Samples

Trip blanks are used to monitor potential volatile organic compound (VOC) cross-contamination introduced into VOC sample containers through diffusion during sample shipment and storage. Trip blank samples were placed in each container used for shipping BTEX samples. BTEX compounds were not detected in the trip blank from the May 1998 sampling event.

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5.0 Summary and Conclusions

The analytical data from the May 1998 groundwater sampling event indicate that migration of contaminants from the drilling effluent pond sediments currently does not appear to be occurring. The following is a summary of the May 1998 groundwater sample results:

BTEX Compounds: BTEX compounds were not detected in any of the May 1998 groundwater samples or quality assurance samples.

Diesel-Range TPH: Diesel-range TPH was not detected in any of the May 1998 groundwater samples or quality assurance samples.

Inorganics: Only barium was detected in all the RCRA total and dissolved metals samples from upgradient well RU-03 and downgradient wells RU-05, RU-06A, RU-07, and RU-08. The highest concentration of barium for RCRA total metals was detected in downgradient well RU-06A. The levels of barium detected were only slightly lower in the dissolved metals fraction than in the total metals fraction. This indicates that most of the barium is in a dissolved state. Lead was only detected in the equipment rinsate sample RUW00134 for RCRA dissolved metals. The lead detection is probably the result of laboratory contamination since it was not seen in any of the groundwater samples and it was seen in the laboratory continuing calibration method blank.

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6.0 References

AEC, see U.S. Atomic Energy Commission.

Appenzeller-Wing, J.L. DOE. 1997. Record of telecon to Chet Pauls, State of Colorado, regarding termination of NPDES Permit, 21 October. Las Vegas, NV.

CFR, see *Code of Federal Regulations*.

Code of Federal Regulations. 1998. 40 CFR Parts 261-281, *Resource Conservation and Recovery Act*. Washington, DC: U.S. Government Printing Office.

DOE, see U.S. Department of Energy.

DRI, see Desert Research Institute.

Desert Research Institute. 1988. *CERCLA Preliminary Assessment of DOE's Nevada Operations Office Nuclear Weapons Testing Areas*. Las Vegas, NV.

Eberline, see Eberline Instrument Corporation.

Eberline Instrument Corporation. 1977. *Rulison Radiation Contamination Clearance Report*. Santa Fe, NM.

EPA, see U.S. Environmental Protection Agency.

ERDA, see U.S. Energy Research and Development Administration.

U.S. Atomic Energy Commission, Nevada Operations Office. 1973. *Rulison Site Cleanup Report*, NVO-136. Las Vegas, NV.

U.S. Department of Energy. 1996a. *Rulison Drilling Effluent Pond Site Long-Term Groundwater Monitoring Plan*, DOE/NV-441. Las Vegas, NV: IT Corporation.

U.S. Department of Energy. 1996b. *Rulison Site Corrective Action Report*, DOE/NV-453. Las Vegas, NV: IT Corporation.

U.S. Department of Energy. 1996c. *Rulison Site Quality Assurance Project Plan, Rulison Site, Colorado*, DOE/NV-440. Las Vegas, NV: IT Corporation.

U.S. Department of Energy. 1998. *Rulison Site Surface Closure Report*, DOE/NV--510, UC-700. Las Vegas NV: IT Corporation.

• U.S. Energy Research and Development Administration, Nevada Operations Office. 1977. *Project Rulison Well Plugging and Site Abandonment Final Report*, NVO-187. Las Vegas, NV.

U.S. Environmental Protection Agency. 1983. *Methods for Chemical Analysis of Water and Wastes*, EPA-600/4-79-020. Cincinnati, OH.

U.S. Environmental Protection Agency. 1990. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, 3rd Edition. Washington, DC: Office of Solid Waste and Emergency Response.

Appendix A

Purge Water Discharge Permit and Letter Terminating Discharge Permit

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Purge Water Discharge Permit

03-19-1996 17:39 702 2951113
03/19/1996 16:35 303-782-0390

OCE/ERO
CUH WOOD WOOD

P. 03
PAGE 02

STATE OF COLORADO

Roy Romo, Governor
Paul Shwyder, Acting Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80272-1530
Phone (303) 692-7000

Laboratory Building
4210 E. 11th Avenue
Denver, Colorado 80270-3716
(303) 691-4700



Colorado Department
of Public Health
and Environment

March 19, 1996

Mr. Kevin D. Leary
DOE

Subject: Reply to request for addition of source to permit COG-310084.

Dear Mr. Leary:

The Division has received and reviewed your fax of 3/19/96. Since the wells described in your fax are in such close proximity to the pond that the permit was designed to provide dewatering conditions for, the Division will allow the wells to be dewatered using the same discharge point as described in the permit. Please follow the same conditions and monitoring schedule as described in the permit. The Division realizes that due to the small amount of water in question, the water might not be of sufficient flow to reach the discharge point. Any future purgings of the water from these wells are covered by this letter and the permit noted above as long as the permit remains active and conditions, monitoring schedule and reporting procedure are followed.

Please feel free to call me at (303)+692-3593 with questions or comments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Tom Boyce".

Tom Boyce
Environmental Protection Specialist
Permits and Enforcement
WATER QUALITY CONTROL DIVISION

cc:file

Letter Terminating Discharge Permit

STATE OF COLORADO

Roy Romer, Governor
Patti Shwayder, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
Located in Glendale, Colorado

Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver CO 80220-6928
(303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

November 18, 1997

Janet Appenzeller-Wing
U.S. Department of Energy
P.O. Box 98518
Las Vegas, Nevada 89193-8518

**RE: Termination of Permit to Discharge
Drilling Effluent Pond Project
Permit No: COG-310084, Garfield County**

Dear Ms. Appenzeller-Wing

As a follow-up to your request for termination of the permit referenced above, this letter is an official notice of termination of Colorado Discharge Permit Number COG-310084.

You have certified that all process water discharges have ceased, and all potential pollutant sources have been removed. It is our opinion that this sites does not require a discharge permit at this time. Should you begin operations in the future, and need to discharge process water, you will have to obtain new permit coverage for those discharges.

From this process a refund or additional fee may result and if so, you should receive notification within the next 30 days. Should you have questions on the fee, or should there be other questions on this action, please contact Darlene Casey at (303) 692-3599.

Sincerely,

Phil Hegeman
Permits Unit Manager
Water Quality Protection Section
WATER QUALITY CONTROL DIVISION

cc: Permit Section, EPA, Mike Reed, Permits Team Leader (8P2-W-P)
Local Health Department
Dwain Watson, D.E., Technical Services Unit, WQCD
Leslie Simpson, Compliance Monitoring & Data Management Unit, WQCD
Permit File
Fee File

PH/dc

NOV 12 1997

WATER QUALITY

ACTION REQUEST FORM

DATE RECEIVED: _____ LOG NO: _____ BY: _____

TO: ~~Robert~~ Dubin Watson SECTION TRANSMITTAL DATE: 03-26-97

Thru: _____ ATTENTION: _____

FROM: Darlene Casey, Permits & Enforcement UNIT

SUBJECT: Termination - U.S. Dept. of Energy PERMIT NO: COG-310084

ACTION/INFORMATION REQUEST

PURPOSE FOR REQUEST: project completed DISCHARGE TO: Haystack Creek

FACILITY CONTACT: Janet Appenzeller-Wing PHONE NO: 1-(702) 295-0461

LOCATION/DIRECTIONS AS APPLICABLE: approx. 8 miles South from town
of Parachute Valley

Please respond by: * April 26, 1997. Attention: Darlene

* If unable to meet this response date, please notify this office ASAP.

cc: _____

RESPONSE TO ACTION/INFORMATION REQUEST

ATTENTION: _____ DATE: 10/21/97

OK to withdraw

cc: _____


SIGNATURE

Copy Distribution:

White - File Copy
Yellow - Field Support
Pink - Originator

3. Will the permittee continue to have a discharge point, such as pipe, conduit, unlined lagoon, etc? ☐ Yes ☒ No
4. Under what conditions could a discharge occur: Storm flow, change in operation, accidental spill, etc.
5. If this is a mining facility or operation, indicate whether any mine drainage exists. Discuss whether there has been a historical flow.
6. Is there a downstream water user, water supply intake, etc.? ☐ Yes ☒ No
- a. If yes, whom and where?
- b. Could they be impacted by a discharge or a spill of any pollutant on-site controllable under an SPCC Plan or other condition of a permit? ☐ Yes ☒ No

NOTE: THE FOLLOWING SHOULD BE KEPT IN MIND IF YOUR PERMIT IS TERMINATED:

- The permittee will still be responsible and subject to any enforcement action for any discharge or spills into state waters. Should you operate your facility after your permit has been terminated and a discharge could occur, you must apply for a new permit no less than 180 days prior to the discharge. It is unlawful to discharge pollutants from a point source to state waters without a permit. Section 25-8-608 of the Water Quality Control Act provides for assessing civil penalties of up to \$10,000 per day for unlawful discharges.
- In general the continued existence of a discharge point will be the basis for not terminating a permit at the request of the permittee.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment. See 18 U.S.C. 1001 and 33 U.S.C. 1319.

Janet Appenzeller-Wing
Authorized Representative

3/10/97
Date

10/17/97

Based upon my verification of the above information obtained during my site inspection, it is my recommendation that this permit be terminated.

Dwain P. White
District Engineer

10/21/97
Date

OK to inactivate

☒ Yes ☐ No

**Water Quality Control Division
Permit Termination Form**

APR 2 1997



Official Use Only

Date Sent

07/19/96

Date Received

03-25-97

Date to D.E.

03-28-97

Date Rec'd from D.E.

07-17-97

OK to Terminate

11/19/01 Ben

Facility Name: U.S. Department of Energy
Vehicle Maintenance & Parking

Permit No.: CCG-310084

Legal Contact: Janet Appenzeller-Wing

Legal Contact Phone No: (702) 295-0461

Facility Contact: same

Facility Contact Phone No.: (702) same

Facility Address: P.O. Box 98518

Legal Location: SW 1/4 of Sec. 25, T7S, R95W

Las Vegas, Nevada 89193-8518

County: Garfield

Direction: approx. 8 miles South from town of Parachute Valley, CO.

Please answer the following questions and sign the certification. If you have any questions regarding your facility and the information required, please contact your District Engineer, Dwain Watson at (303) 248-7156.

Purpose of Request project completed. Discharge was to Hayward Creek.

1. Is the construction complete?



Yes



No

a. If not, is there any plan to complete construction in the future?



Yes



No

b. If so, is there an estimate of when?



Yes



No

Date for start-up _____

2. If the facility is operational, is any process or other wastewater being produced?



Yes



No

How much? _____ gpc

a. If yes, is the water being treated?



Yes



No

b. What form of treatment is utilized? Discuss sizes of unit processes and any chemical additions.

c. Is any of the process or any other wastewater or water being discharged to waters of the state? (This includes groundwater in cases like unlined lagoons.)



Yes



No

1. If yes, identify discharge point(s).

d. Is the facility designed to be a non-discharging (evaporative) system.



Yes



No

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Appendix B

May 1998 Analytical Results

Table B-1
Sample Number and Description

Sample Number	Sample Location or Description
RUW00130	Well RU-06A
RUW00131	Trip Blank
RUW00132	Duplicate of RUW00130 at RU-06A
RUW00133	Well RU-03
RUW00134	Equipment Rinsate
RUW00135	Well RU-05
RUW00136	Well RU-07
RUW00137	Well RU-08

TPH - Diesel



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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06019816325369
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SAMPLE ANALYSIS DATA SHEET



S984H02K

Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130
DCL Sample Name....: 98C01155
DCL Report Group...: 98C-0109-02

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: µg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013
Date Prepared.....: 27-MAY-98 00:00
Preparation Method....: 8015mod
Aliquot Weight/Volume: 1000 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985000Q
Analysis Method....: 8015 MOD
Instrument Type....: GC/FID
Instrument ID.....: p
Column Type.....: DB-5MS
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	325.	400.	81.3



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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00132
DCL Sample Name....: 98C01157
DCL Report Group...: 98C-0109-02

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:00
Reporting Units....: µg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013
Date Prepared.....: 27-MAY-98 00:00
Preparation Method....: 8015mod
Aliquot Weight/Volume: 1000 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985000Q
Analysis Method....: 8015 MOD
Instrument Type....: GC/FID
Instrument ID.....: p
Column Type.....: DB-5MS
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	328.	400.	82.0



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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00133
DCL Sample Name....: 98C01158
DCL Report Group...: 98C-0109-02

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 19:00
Reporting Units....: µg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013
Date Prepared.....: 27-MAY-98 00:00
Preparation Method....: 8015mod
Aliquot Weight/Volume: 1000 mL
Net Weight/Volume....: Not Required

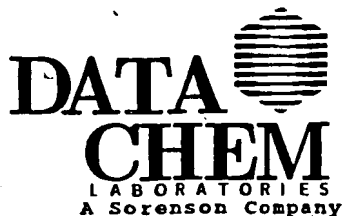
DCL Analysis Group: G985000Q
Analysis Method....: 8015 MOD
Instrument Type....: GC/FID
Instrument ID.....: p
Column Type.....: DB-5MS
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	337.	400.	84.3



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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REP. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00134
DCL Sample Name....: 98C01159
DCL Report Group...: 98C-0109-02

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 10:45
Reporting Units....: µg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013
Date Prepared.....: 27-MAY-98 00:00
Preparation Method...: 8015mod
Aliquot Weight/Volume: 1000 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985000Q
Analysis Method....: 8015 MOD
Instrument Type....: GC/FID
Instrument ID.....: p
Column Type.....: DB-5MS
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	349.	400.	87.3

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S984H02S

SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00135

DCL Sample Name....: 98C01160

DCL Report Group...: 98C-0109-02

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 15:55

Reporting Units....: µg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013

Date Prepared.....: 27-MAY-98 00:00

Preparation Method....: 8015mod

Aliquot Weight/Volume: 1000 mL

Net Weight/Volume....: Not Required

DCL Analysis Group: G985000Q

Analysis Method....: 8015 MOD

Instrument Type....: GC/FID

Instrument ID.....: p

Column Type.....: DB-5MS

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	313.	400.	78.3



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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 01-JUN-98 16:31

Client Sample Name: RUW00136

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01161

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-02

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 16:40

Reporting Units....: µg/L

Date Received.....: 15-MAY-98 00:00

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013

DCL Analysis Group: G985000Q

Date Prepared.....: 27-MAY-98 00:00

Analysis Method....: 8015 MOD

Preparation Method....: 8015mod

Instrument Type....: GC/FID

Aliquot Weight/Volume: 1000 mL

Instrument ID.....: p

Net Weight/Volume....: Not Required

Column Type.....: DB-5MS

☒ Primary

☐ Confirmation

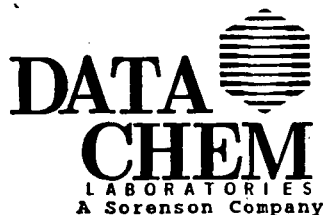
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	340.	400.	85.0

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 01-JUN-98 16:31

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00137
DCL Sample Name....: 98C01162
DCL Report Group...: 98C-0109-02

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 14:15
Reporting Units....: µg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G984V013
Date Prepared.....: 27-MAY-98 00:00
Preparation Method....: 8015mod
Aliquot Weight/Volume: 1000 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985000Q
Analysis Method....: 8015 MOD
Instrument Type....: GC/FID
Instrument ID.....: p
Column Type.....: DB-5MS
☒ Primary
☐ Confirmation

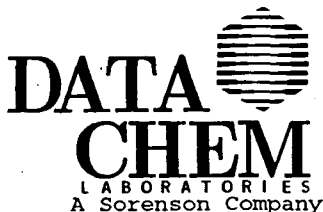
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
TPH-Diesel	29-MAY-98 00:00	36.6	ND			1	100

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
o-Terphenyl	332.	400.	83.0

BTEX



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06119818411420
Page 5

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 11-JUN-98 18:41

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130
DCL Sample Name....: 98C01155
DCL Report Group...: 98C-0109-01

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 25 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9858025
Analysis Method....: 8260B
Instrument Type....: GC/MS VO
Instrument ID.....: HP5972-0
Column Type.....: DB624
☒ Primary
☐ Confirmation

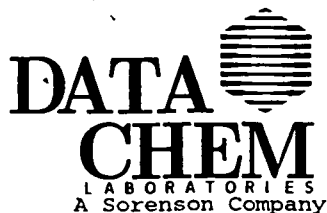
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 21:54	0.0807	ND			1	1
Toluene	27-MAY-98 21:54	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 21:54	0.0628	ND			1	1
Total Xylene	27-MAY-98 21:54	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.75	10.0	97.5
4-Bromofluorobenzene	9.93	10.0	99.3
Toluene-d8	10.3	10.0	103.

011



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06119818411420
Page 6

SAMPLE ANALYSIS DATA SHEET



Date Printed..... 11-JUN-98 18:41

Client Sample Name: RUW00131

Client Name..... ITLV Corporation, Inc

DCL Sample Name.... 98C01156

Client Ref Number.... REF. DOC. #408700

DCL Report Group... 98C-0109-01

Sampling Site..... Rulison Groundwater

Matrix..... WATER

Release Number..... IT009

Date Sampled..... 13-MAY-98 10:30

Date Received..... 15-MAY-98 00:00

Reporting Units.... ug/L

Report Basis..... ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G9858025

Date Prepared..... Not Applicable

Analysis Method.... 8260B

Preparation Method... Not Applicable

Instrument Type.... GC/MS VO

Aliquot Weight/Volume: 25 mL

Instrument ID..... HP5972-O

Net Weight/Volume.... Not Required

Column Type..... DB624

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 22:24	0.0807	ND			1	1
Toluene	27-MAY-98 22:24	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 22:24	0.0628	ND			1	1
Total Xylene	27-MAY-98 22:24	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.77	10.0	97.7
4-Bromofluorobenzene	9.86	10.0	98.6
Toluene-d8	10.1	10.0	101.

012



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06119818411420
Page 7

SAMPLE ANALYSIS DATA SHEET



Date Printed..... 11-JUN-98 18:41

Client Sample Name: RUW00132

DCL Sample Name.... 98C01157

DCL Report Group... 98C-0109-01

Client Name..... ITLV Corporation, Inc

Client Ref Number..... REF. DOC. #408700

Sampling Site..... Rulison Groundwater

Release Number..... IT009

Matrix..... WATER

Date Sampled..... 13-MAY-98 12:00

Reporting Units.... ug/L

Report Basis..... ☒ As Received ☐ Dried

Date Received..... 15-MAY-98 00:00

DCL Analysis Group: G9858025

Analysis Method.... 8260B

Instrument Type.... GC/MS V0

Instrument ID..... HP5972-0

Column Type..... DB624

☒ Primary

☐ Confirmation

DCL Preparation Group: Not Applicable

Date Prepared..... Not Applicable

Preparation Method.... Not Applicable

Aliquot Weight/Volume: 25 mL

Net Weight/Volume.... Not Required

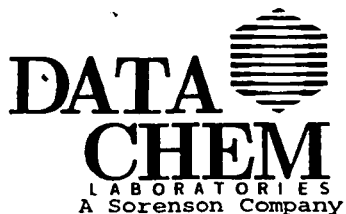
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 22:54	0.0807	ND			1	1
Toluene	27-MAY-98 22:54	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 22:54	0.0628	ND			1	1
Total Xylene	27-MAY-98 22:54	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.62	10.0	96.2
4-Bromofluorobenzene	10.2	10.0	102.
Toluene-d8	10.2	10.0	102.

013



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06119818411420
Page 8

SAMPLE ANALYSIS DATA SHEET



Date Printed..... 11-JUN-98 18:41

Client Name..... ITLV Corporation, Inc
Client Ref Number..... REF. DOC. #408700
Sampling Site..... Rulison Groundwater
Release Number..... IT009

Date Received..... 15-MAY-98 00:00

Client Sample Name: RUW00133
DCL Sample Name.... 98C01158
DCL Report Group... 98C-0109-01

Matrix..... WATER
Date Sampled..... 13-MAY-98 19:00
Reporting Units.... ug/L
Report Basis..... ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared..... Not Applicable
Preparation Method.... Not Applicable
Aliquot Weight/Volume: 25 mL
Net Weight/Volume.... Not Required

DCL Analysis Group: G9858025
Analysis Method.... 8260B
Instrument Type.... GC/MS VO
Instrument ID..... HP5972-O
Column Type..... DB624

☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 23:24	0.0807	ND			1	1
Toluene	27-MAY-98 23:24	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 23:24	0.0628	ND			1	1
Total Xylene	27-MAY-98 23:24	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.75	10.0	97.5
4-Bromofluorobenzene	10.1	10.0	101.
Toluene-d8	10.1	10.0	101.

014



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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Page 11

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 11-JUN-98 18:41

Client Sample Name: RUW00134

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01159

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-01

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 10:45

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G9858025

Date Prepared.....: Not Applicable

Analysis Method....: 8260B

Preparation Method...: Not Applicable

Instrument Type....: GC/MS VO

Aliquot Weight/Volume: 25 mL

Instrument ID.....: HP5972-0

Net Weight/Volume....: Not Required

Column Type.....: DB624

☒ Primary

☐ Confirmation

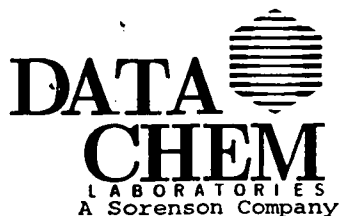
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 23:54	0.0807	ND			1	1
Toluene	27-MAY-98 23:54	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 23:54	0.0628	ND			1	1
Total Xylene	27-MAY-98 23:54	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.85	10.0	98.5
4-Bromofluorobenzene	10.2	10.0	102.
Toluene-d8	10.0	10.0	100.

017



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 11-JUN-98 18:41

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC: #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: ROW00135
DCL Sample Name....: 98C01160
DCL Report Group...: 98C-0109-01

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 15:55
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: Not Applicable
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 25 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9858025
Analysis Method....: 8260B
Instrument Type....: GC/MS VO
Instrument ID.....: HP5972-0
Column Type.....: DB624
☒ Primary
☐ Confirmation

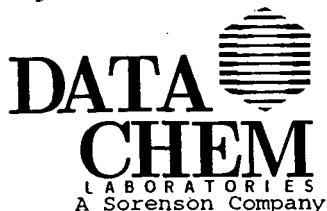
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 19:27	0.0807	ND			1	1
Toluene	27-MAY-98 19:27	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 19:27	0.0628	ND			1	1
Total Xylene	27-MAY-98 19:27	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.52	10.0	95.2
4-Bromofluorobenzene	9.98	10.0	99.8
Toluene-d8	10.2	10.0	102.

018



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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06119818411420
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SAMPLE ANALYSIS DATA SHEET



S984H02H

Date Printed..... 11-JUN-98 18:41

Client Name..... ITLV Corporation, Inc
Client Ref Number..... REF. DOC. #408700
Sampling Site..... Rulison Groundwater
Release Number..... IT009

Date Received..... 15-MAY-98 00:00

Client Sample Name: RUW00136
DCL Sample Name.... 98C01161
DCL Report Group... 98C-0109-01

Matrix..... WATER
Date Sampled..... 13-MAY-98 16:40
Reporting Units.... ug/L
Report Basis..... ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared..... Not Applicable
Preparation Method... Not Applicable
Aliquot Weight/Volume: 25 mL
Net Weight/Volume.... Not Required

DCL Analysis Group: G9858025
Analysis Method.... 8260B
Instrument Type.... GC/MS VO
Instrument ID..... HP5972-o
Column Type..... DB624

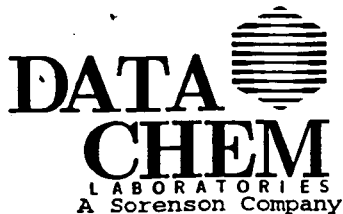
☒ Primary
☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 19:57	0.0807	ND			1	1
Toluene	27-MAY-98 19:57	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 19:57	0.0628	ND			1	1
Total Xylene	27-MAY-98 19:57	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.60	10.0	96.0
4-Bromofluorobenzene	10.0	10.0	100.
Toluene-d8	10.2	10.0	102.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06119818411420
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SAMPLE ANALYSIS DATA SHEET



Date Printed..... 11-JUN-98 18:41

Client Sample Name: RUW00137

Client Name..... ITLV Corporation, Inc

DCL Sample Name.... 98C01162

Client Ref Number.... REF. DOC. #408700

DCL Report Group... 98C-0109-01

Sampling Site..... Rulison Groundwater

Matrix..... WATER

Release Number..... IT009

Date Sampled..... 13-MAY-98 14:15

Reporting Units.... ug/L

Date Received..... 15-MAY-98 00:00

Report Basis..... ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G9858025

Date Prepared..... Not Applicable

Analysis Method.... 8260B

Preparation Method... Not Applicable

Instrument Type.... GC/MS VO

Aliquot Weight/Volume: 25 mL

Instrument ID..... HP5972-C

Net Weight/Volume.... Not Required

Column Type..... DB624

☒ Primary

☐ Confirmation

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Benzene	27-MAY-98 20:28	0.0807	ND			1	1
Toluene	27-MAY-98 20:28	0.0582	ND			1	1
Ethylbenzene	27-MAY-98 20:28	0.0628	ND			1	1
Total Xylene	27-MAY-98 20:28	0.156	ND			1	1

Surrogate Recoveries

Analyte	Result	Spiked Amount	Percent Recovery
1,2-Dichloroethane-d4	9.81	10.0	98.1
4-Bromofluorobenzene	10.1	10.0	101.
Toluene-d8	10.2	10.0	102.

026

RCRA Total Metals with Mercury



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
07069811384439
Page 5



SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130

DCL Sample Name....: 98C01155

DCL Report Group...: 98C-0109-03

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 12:40

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Preparation Method....: 3015

Aliquot Weight/Volume: 45 mL

Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F

Analysis Method....: 6010

Instrument Type....: ICP

Instrument ID.....: ICP-H

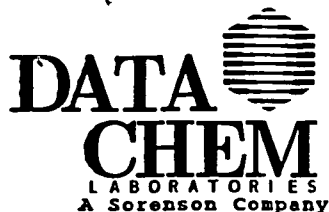
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 12:28	65	ND			1	300
Barium	01-JUL-98 12:28	3.4	120			1	20
Cadmium	01-JUL-98 12:28	2.6	ND			1	5.0
Chromium	01-JUL-98 12:28	7.0	ND			1	10
Lead	01-JUL-98 12:28	32	ND			1	100
Selenium	01-JUL-98 12:28	39	87.		U	1	300
Silver	01-JUL-98 12:28	4.5	ND			1	10

Reason 025

LC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06059808554326
Page 5

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130
DCL Sample Name....: 98C01155
DCL Report Group...: 98C-0109-04

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

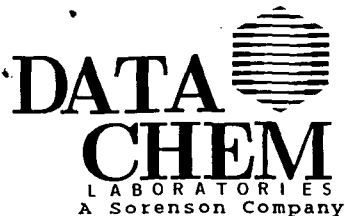
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:09	0.0614	0.077	LL	B	1	0.1

Reason
025

LL
7-21-98

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
07069811384439
Page 6

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00132
DCL Sample Name....: 98C01157
DCL Report Group...: 98C-0109-03

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:00
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 12:32	65	ND			1	300
Barium	01-JUL-98 12:32	3.4	120			1	20
Cadmium	01-JUL-98 12:32	2.6	ND			1	5.0
Chromium	01-JUL-98 12:32	7.0	ND			1	10
Lead	01-JUL-98 12:32	32	ND			1	100
Selenium	01-JUL-98 12:32	39	54.		u	1	300
Silver	01-JUL-98 12:32	4.5	ND			1	10

Reason 025

LC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06059808554326
Page 6

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Sample Name: RUW00132

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01157

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-04

Sampling Site.....: Rulison Groundwater

Release Number.....: IT009

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 12:00

Reporting Units....: ug/L

Date Received.....: 15-MAY-98 00:00

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:11	0.0614	0.075	u	B	1	0.1

Reason
025

ML
7-21-98

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
07069811384439
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00133
DCL Sample Name....: 98C01158
DCL Report Group...: 98C-0109-03

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 19:00
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 12:36	65	ND			1	300
Barium	01-JUL-98 12:36	3.4	60.			1	20
Cadmium	01-JUL-98 12:36	2.6	ND			1	5.0
Chromium	01-JUL-98 12:36	7.0	ND			1	10
Lead	01-JUL-98 12:36	32	ND			1	100
Selenium	01-JUL-98 12:36	39	50.		u	1	300
Silver	01-JUL-98 12:36	4.5	ND			1	10

Reason 025

LC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06059808554326
Page 7

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume.....: Not Required

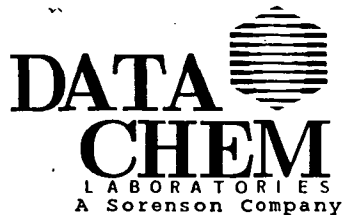
Client Sample Name: RUW00133
DCL Sample Name....: 98C01158
DCL Report Group...: 98C-0109-04

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 19:00
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:12	0.0614	ND		U	1	0.1



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET

Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00134
DCL Sample Name....: 98C01159
DCL Report Group...: 98C-0109-03

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 10:45
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

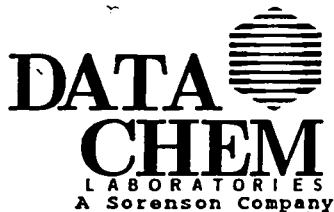
DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 12:59	65	ND			1	300
Barium	01-JUL-98 12:59	3.4	ND			1	20
Cadmium	01-JUL-98 12:59	2.6	ND			1	5.0
Chromium	01-JUL-98 12:59	7.0	ND			1	10
Lead	01-JUL-98 12:59	32	44.		u	1	100
Selenium	01-JUL-98 12:59	39	110		u	1	300
Silver	01-JUL-98 12:59	4.5	ND			1	10

Reason 025

RC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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06059808554326
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Sample Name: RUW00134

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01159

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-04

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 10:45

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

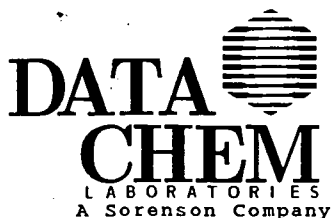
Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:17	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Sample Name: RUW00135

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01160

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-03

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 15:55

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

DCL Analysis Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Analysis Method....: 6010

Preparation Method....: 3015

Instrument Type....: ICP

Aliquot Weight/Volume: 45 mL

Instrument ID.....: ICP-H

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:03	65	ND			1	300
Barium	01-JUL-98 13:03	3.4	28.		U	1	20
Cadmium	01-JUL-98 13:03	2.6	ND			1	5.0
Chromium	01-JUL-98 13:03	7.0	7.3		U	1	10
Lead	01-JUL-98 13:03	32	ND			1	100
Selenium	01-JUL-98 13:03	39	ND			1	300
Silver	01-JUL-98 13:03	4.5	ND			1	10

Reason 025

RC
7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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Page 11

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00135
DCL Sample Name....: 98C01160
DCL Report Group...: 98C-0109-04

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 15:55
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

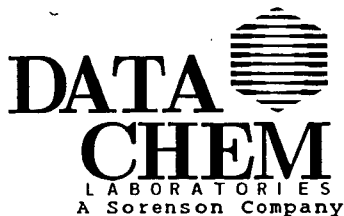
DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:18	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Sample Name: RUW00136

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01161

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-03

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 16:40

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

DCL Analysis Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Analysis Method....: 6010

Preparation Method....: 3015

Instrument Type....: ICP

Aliquot Weight/Volume: 45 mL

Instrument ID.....: ICP-H

Net Weight/Volume....: Not Required

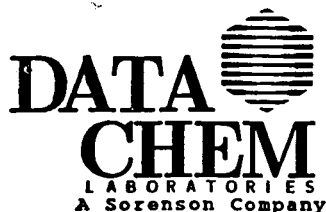
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:07	65	ND			1	300
Barium	01-JUL-98 13:07	3.4	100			1	20
Cadmium	01-JUL-98 13:07	2.6	ND			1	5.0
Chromium	01-JUL-98 13:07	7.0	ND			1	10
Lead	01-JUL-98 13:07	32	44.		U	1	100
Selenium	01-JUL-98 13:07	39	ND			1	300
Silver	01-JUL-98 13:07	4.5	ND			1	10

Reason 025

LC
7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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Page 12

SAMPLE ANALYSIS DATA SHEET



S984H03G

Date Printed.....: 05-JUN-98 08:55

Client Sample Name: RUW00136

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01161

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-04

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 16:40

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:20	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00137
DCL Sample Name....: 98C01162
DCL Report Group...: 98C-0109-03

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 14:15
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

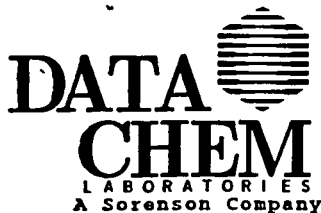
DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:10	65	ND			1	300
Barium	01-JUL-98 13:10	3.4	110			1	20
Cadmium	01-JUL-98 13:10	2.6	ND			1	5.0
Chromium	01-JUL-98 13:10	7.0	ND			1	10
Lead	01-JUL-98 13:10	32	64.		U	1	100
Selenium	01-JUL-98 13:10	39	90.		U	1	300
Silver	01-JUL-98 13:10	4.5	ND			1	10

Reason 025

LC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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Page 13

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:55

Client Sample Name: RUW00137

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01162

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-04

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 14:15

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method...: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:21	0.0614	ND		U	1	0.1

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RCRA Dissolved Metals with Mercury



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Sample Name: RUW00130

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01163

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-07

Sampling Site.....: Rulison Groundwater

Matrix.....: WATERF

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 12:40

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

DCL Analysis Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Analysis Method....: 6010

Preparation Method....: 3015

Instrument Type....: ICP

Aliquot Weight/Volume: 45 mL

Instrument ID.....: ICP-H

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:14	65	93.		u	1	300
Barium	01-JUL-98 13:14	3.4	110			1	20
Cadmium	01-JUL-98 13:14	2.6	ND			1	5.0
Chromium	01-JUL-98 13:14	7.0	ND			1	10
Lead	01-JUL-98 13:14	32	48.		u	1	100
Selenium	01-JUL-98 13:14	39	ND			1	300
Silver	01-JUL-98 13:14	4.5	ND			1	10

Reason 025

LC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:57

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130
DCL Sample Name....: 98C01163
DCL Report Group...: 98C-0109-08

Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:26	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00132
DCL Sample Name....: 98C01164
DCL Report Group...: 98C-0109-07

Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 12:00
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

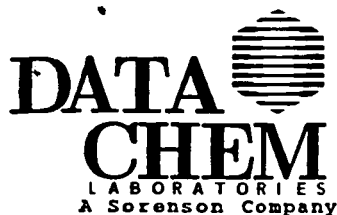
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:18	65	ND			1	300
Barium	01-JUL-98 13:18	3.4	110			1	20
Cadmium	01-JUL-98 13:18	2.6	ND			1	5.0
Chromium	01-JUL-98 13:18	7.0	ND			1	10
Lead	01-JUL-98 13:18	32	34.		4	1	100
Selenium	01-JUL-98 13:18	39	ND			1	300
Silver	01-JUL-98 13:18	4.5	ND			1	10

Reason 025

RC

7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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Page 4

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:57

Client Sample Name: RUW00132

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01164

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-08

Sampling Site.....: Rulison Groundwater

Matrix.....: WATERF

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 12:00

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:28	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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Page 5

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00133
DCL Sample Name....: 98C01165
DCL Report Group...: 98C-0109-07

Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 19:00
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 13:22	65	ND			1	300
Barium	01-JUL-98 13:22	3.4	56.			1	20
Cadmium	01-JUL-98 13:22	2.6	2.8		u	1	5.0
Chromium	01-JUL-98 13:22	7.0	ND			1	10
Lead	01-JUL-98 13:22	32	52.		u	1	100
Selenium	01-JUL-98 13:22	39	ND			1	300
Silver	01-JUL-98 13:22	4.5	ND			1	10

Reason 025

Lc 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



S984H04R

Date Printed.....: 05-JUN-98 08:57

Client Sample Name: RUW00133

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01165

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-08

Sampling Site.....: Rulison Groundwater

Matrix.....: WATERF

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 19:00

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

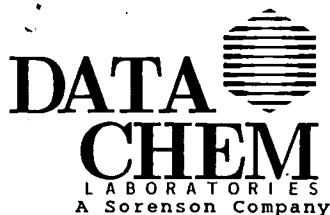
Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual:	Dilution	CRDL
Mercury	03-JUN-98 11:29	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00134

DCL Sample Name....: 98C01166

DCL Report Group...: 98C-0109-07

Matrix.....: WATERF

Date Sampled.....: 13-MAY-98 10:45

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Preparation Method....: 3015

Aliquot Weight/Volume: 45 mL

Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F

Analysis Method....: 6010

Instrument Type....: ICP

Instrument ID.....: ICP-H

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 16:09	65	ND			1	300
Barium	01-JUL-98 16:09	3.4	ND			1	20
Cadmium	01-JUL-98 16:09	2.6	ND			1	5.0
Chromium	01-JUL-98 16:09	7.0	ND			1	10
Lead	01-JUL-98 16:09	32	73.		B	1	100
Selenium	01-JUL-98 16:09	39	ND			1	300
Silver	01-JUL-98 16:09	4.5	ND			1	10

AC
8-10-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:57

Client Sample Name: RUW00134

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01166

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-08

Sampling Site.....: Rulison Groundwater

Release Number.....: IT009

Matrix.....: WATERF

Date Sampled.....: 13-MAY-98 10:45

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method....: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:34	0.0614	0.11		u	1	0.1

Reason 025

LC 7-21-98

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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07069811385140
Page 10

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Sample Name: RUW00135

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01167

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-07

Sampling Site.....: Rulison Groundwater

Release Number.....: IT009

Matrix.....: WATERF

Date Sampled.....: 13-MAY-98 15:55

Reporting Units....: ug/L

Date Received.....: 15-MAY-98 00:00

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

DCL Analysis Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Analysis Method....: 6010

Preparation Method....: 3015

Instrument Type....: ICP

Aliquot Weight/Volume: 45 mL

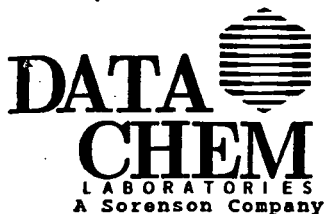
Instrument ID.....: ICP-H

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 16:12	65	ND			1	300
Barium	01-JUL-98 16:12	3.4	26.			1	20
Cadmium	01-JUL-98 16:12	2.6	ND			1	5.0
Chromium	01-JUL-98 16:12	7.0	ND			1	10
Lead	01-JUL-98 16:12	32	ND			1	100
Selenium	01-JUL-98 16:12	39	ND			1	300
Silver	01-JUL-98 16:12	4.5	ND			1	10



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06059808575401
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SAMPLE ANALYSIS DATA SHEET



S984H04W

Date Printed.....: 05-JUN-98 08:57

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00135
DCL Sample Name....: 98C01167
DCL Report Group...: 98C-0109-08

Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 15:55
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:35	0.0614	ND		U	1	0.1



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
07069811385140
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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00136
DCL Sample Name....: 98C01168
DCL Report Group...: 98C-0109-07

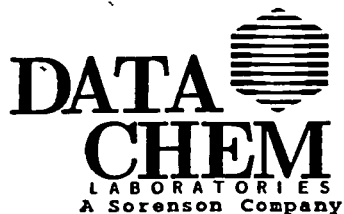
Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 16:40
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F
Date Prepared.....: 05-JUN-98 10:30
Preparation Method....: 3015
Aliquot Weight/Volume: 45 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G985400F
Analysis Method....: 6010
Instrument Type....: ICP
Instrument ID.....: ICP-H
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 16:16	65	ND			1	300
Barium	01-JUL-98 16:16	3.4	110			1	20
Cadmium	01-JUL-98 16:16	2.6	ND			1	5.0
Chromium	01-JUL-98 16:16	7.0	ND			1	10
Lead	01-JUL-98 16:16	32	ND			1	100
Selenium	01-JUL-98 16:16	39	ND			1	300
Silver	01-JUL-98 16:16	4.5	ND			1	10



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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Page 10

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:57

Client Sample Name: RUW00136

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01168

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-08

Sampling Site.....: Rulison Groundwater

Matrix.....: WATERF

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 16:40

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003

DCL Analysis Group: G9851003

Date Prepared.....: 02-JUN-98 00:00

Analysis Method....: 7470

Preparation Method...: 7470

Instrument Type....: CVAA

Aliquot Weight/Volume: 100 mL

Instrument ID.....: AAS-CVC

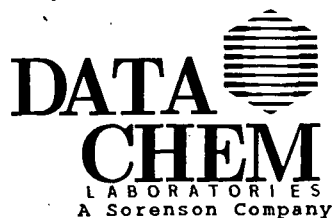
Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:37	0.0614	ND		U	1	0.1

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
07069811385140
Page 12

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 06-JUL-98 11:38

Client Sample Name: RUW00137

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01169

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-07

Sampling Site.....: Rulison Groundwater

Matrix.....: WATERF

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 14:15

Date Received.....: 15-MAY-98 00:00

Reporting Units....: ug/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G985400F

DCL Analysis Group: G985400F

Date Prepared.....: 05-JUN-98 10:30

Analysis Method....: 6010

Preparation Method....: 3015

Instrument Type....: ICP

Aliquot Weight/Volume: 45 mL

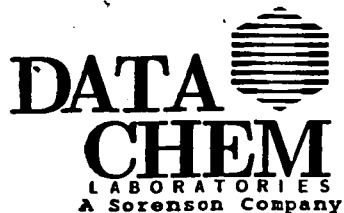
Instrument ID.....: ICP-H

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Arsenic	01-JUL-98 16:20	65	ND			1	300
Barium	01-JUL-98 16:20	3.4	100			1	20
Cadmium	01-JUL-98 16:20	2.6	ND			1	5.0
Chromium	01-JUL-98 16:20	7.0	ND			1	10
Lead	01-JUL-98 16:20	32	ND			1	100
Selenium	01-JUL-98 16:20	39	ND			1	300
Silver	01-JUL-98 16:20	4.5	ND			1	10



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
06059808575401
Page 11

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 05-JUN-98 08:57

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00137
DCL Sample Name....: 98C01169
DCL Report Group...: 98C-0109-08

Matrix.....: WATERF
Date Sampled.....: 13-MAY-98 14:15
Reporting Units....: ug/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G9851003
Date Prepared.....: 02-JUN-98 00:00
Preparation Method....: 7470
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G9851003
Analysis Method....: 7470
Instrument Type....: CVAA
Instrument ID.....: AAS-CVC
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Mercury	03-JUN-98 11:38	0.0614	0.068	U	B	1	0.1

Reason
025

LC
7-21-98

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**Total Dissolved Solids
and
Total Suspended Solids**



FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

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05299809213574

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S984H03J

Date Printed.....: 29-MAY-98 09:17

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 100 mL
Net Weight/Volume.....: Not Required

Client Sample Name: RUW00130
DCL Sample Name....: 98C01155
DCL Report Group...: 98C-0109-05

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: mg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Analysis Group: G984V008
Analysis Method....: 160.1
Instrument Type....: PP
Instrument ID.....: GRAV
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	430			1	10.

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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05279814190501
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SAMPLE ANALYSIS DATA SHEET



S984H03T

Date Printed.....: 27-MAY-98 14:19

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00130
DCL Sample Name....: 98C01155
DCL Report Group...: 98C-0109-06

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 12:40
Reporting Units....: mg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 200 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G984V012
Analysis Method....: 160.2
Instrument Type....: PP
Instrument ID.....: GRAV
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	ND		UJ	1	4.

Reason 106

LC

7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05299809213574
Page 6

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 29-MAY-98 09:17

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

Client Sample Name: RUW00132

DCL Sample Name....: 98C01157

DCL Report Group...: 98C-0109-05

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 12:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Analysis Group: G984V008

Analysis Method....: 160.1

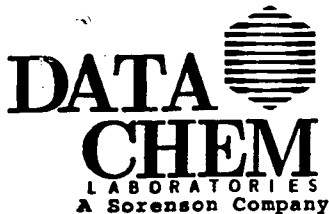
Instrument Type....: PP

Instrument ID.....: GRAV

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	430			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05279814190501
Page 6

SAMPLE ANALYSIS DATA SHEET



S984H03V

Date Printed.....: 27-MAY-98 14:19

Client Sample Name: RUW00132

DCL Sample Name....: 98C01157

DCL Report Group...: 98C-0109-06

Client Name.....: ITLV Corporation, Inc

Client Ref Number....: REF. DOC. #408700

Sampling Site.....: Rulison Groundwater

Release Number.....: IT009

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 12:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

Date Received.....: 15-MAY-98 00:00

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V012

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.2

Preparation Method...: Not Applicable

Instrument Type....: PP

Aliquot Weight/Volume: 200 mL

Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	ND		UJ	1	4.

Reason 106

RA 7-21-98

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

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SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 29-MAY-98 09:17

Client Sample Name: RUW00133

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01158

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-05

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 19:00

Date Received.....: 15-MAY-98 00:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V008

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.1

Preparation Method...: Not Applicable

Instrument Type....: PP

Aliquot Weight/Volume: 100 mL

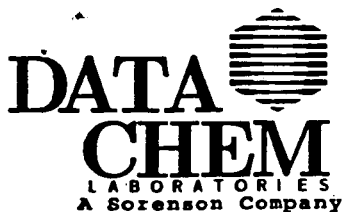
Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	380			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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Page 7

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 27-MAY-98 14:19

Client Sample Name: RUW00133

DCL Sample Name....: 98C01158

DCL Report Group...: 98C-0109-06

Client Name.....: ITLV Corporation, Inc

Client Ref Number....: REF. DOC. #408700

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 19:00

Reporting Units....: mg/L

Date Received.....: 15-MAY-98 00:00

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V012

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.2

Preparation Method....: Not Applicable

Instrument Type....: PP

Aliquot Weight/Volume: 200 mL

Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	10.		J	1	4.

Reason 106

AC 7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05299809213574

Page 9

SAMPLE ANALYSIS DATA SHEET



S984H03P

Date Printed.....: 29-MAY-98 09:17

Client Sample Name: RUW00134

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01159

Client Ref Number.....: REF. DOC. #408700

DCL Report Group...: 98C-0109-05

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 10:45

Date Received.....: 15-MAY-98 00:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V008

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.1

Preparation Method....: Not Applicable

Instrument Type....: PF

Aliquot Weight/Volume: 100 mL

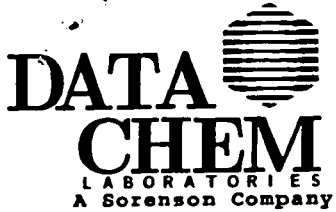
Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	ND			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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Page 9

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 27-MAY-98 14:19

Client Sample Name: RUW00134

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01159

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-06

Sampling Site.....: Rulison Groundwater

Release Number.....: IT009

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 10:45

Reporting Units....: mg/L

Date Received.....: 15-MAY-98 00:00

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V012

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.2

Preparation Method....: Not Applicable

Instrument Type....: PP

Aliquot Weight/Volume: 200 mL

Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

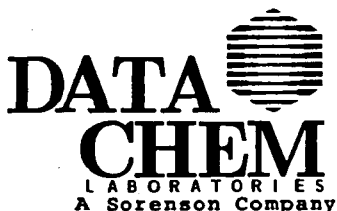
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	ND		UJ	1	4.

Reason 106

AC

7-21-98



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05299809213574
Page 10

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 29-MAY-98 09:17

Client Sample Name: RUW00135

Client Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01160

Client Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-05

Sampling Site.....: Rulison Groundwater

Matrix.....: WATER

Release Number.....: IT009

Date Sampled.....: 13-MAY-98 15:55

Date Received.....: 15-MAY-98 00:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable

DCL Analysis Group: G984V008

Date Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.1

Preparation Method...: Not Applicable

Instrument Type....: PP

Aliquot Weight/Volume: 100 mL

Instrument ID.....: GRAV

Net Weight/Volume....: Not Required

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	170			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05279814190501
Page 10

SAMPLE ANALYSIS DATA SHEET



8984H040

Date Printed.....: 27-MAY-98 14:19

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00135
DCL Sample Name....: 98C01160
DCL Report Group...: 98C-0109-06

Matrix.....: WATER
Date Sampled.....: 13-MAY-98 15:55
Reporting Units....: mg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 200 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G984V012
Analysis Method....: 160.2
Instrument Type....: PP
Instrument ID.....: GRAV
Column Type.....: Not Applicable

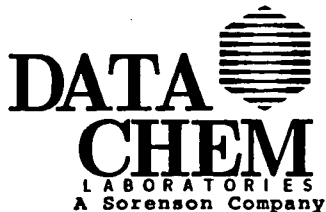
Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	ND		UJ	1	4.

Reason 106

PL 7-21-98

373



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05299809213574
Page 11

SAMPLE ANALYSIS DATA SHEET



Date Printed.....: 29-MAY-98 09:17

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00136

DCL Sample Name....: 98C01161

DCL Report Group...: 98C-0109-05

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 16:40

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method....: Not Applicable
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G984V008
Analysis Method....: 160.1
Instrument Type....: PF
Instrument ID.....: GRAV
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	310			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
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SAMPLE ANALYSIS DATA SHEET



ate Printed.....: 27-MAY-98 14:19

Client Sample Name: RUW00136

lient Name.....: ITLV Corporation, Inc

DCL Sample Name....: 98C01161

lient Ref Number....: REF. DOC. #408700

DCL Report Group...: 98C-0109-06

ampling Site.....: Rulison Groundwater

Matrix.....: WATER

elease Number.....: IT009

Date Sampled.....: 13-MAY-98 16:40

ate Received.....: 15-MAY-98 00:00

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

CL Preparation Group: Not Applicable

DCL Analysis Group: G984V012

ate Prepared.....: 18-MAY-98 00:00

Analysis Method....: 160.2

eparation Method...: Not Applicable

Instrument Type....: PP

liquot Weight/Volume: 200 mL

Instrument ID.....: GRAV

et Weight/Volume....: Not Required

Column Type.....: Not Applicable

analytical Results

analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
total Suspended Solids	18-MAY-98 00:00	4.	26		J	1	4.

Reason 106

CC

7-21-98

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FORM A (TYPE I)
SINGLE METHOD ANALYSES

Form RLIMS63A-V1.3
05299809213574
Page 12

SAMPLE ANALYSIS DATA SHEET



8984H038

Date Printed.....: 29-MAY-98 09:17

Client Name.....: ITLV Corporation, Inc
Client Ref Number....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00137
DCL Sample Name....: 98C01162
DCL Report Group...: 98C-0109-05

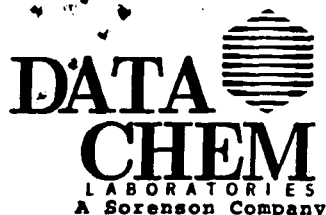
Matrix.....: WATER
Date Sampled.....: 13-MAY-98 14:15
Reporting Units....: mg/L
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: Not Applicable
Date Prepared.....: 18-MAY-98 00:00
Preparation Method...: Not Applicable
Aliquot Weight/Volume: 100 mL
Net Weight/Volume....: Not Required

DCL Analysis Group: G984V008
Analysis Method....: 160.1
Instrument Type....: PP
Instrument ID.....: GRAV
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Dissolved Solids	18-MAY-98 00:00	10.	430			1	10.



FORM A (TYPE I)
SINGLE METHOD ANALYSES

SAMPLE ANALYSIS DATA SHEET

Form RLIMS63A-V1.3
05279814190501
Page 12



Date Printed.....: 27-MAY-98 14:19

Client Name.....: ITLV Corporation, Inc
Client Ref Number.....: REF. DOC. #408700
Sampling Site.....: Rulison Groundwater
Release Number.....: IT009

Date Received.....: 15-MAY-98 00:00

Client Sample Name: RUW00137

DCL Sample Name....: 98C01162

DCL Report Group...: 98C-0109-06

Matrix.....: WATER

Date Sampled.....: 13-MAY-98 14:15

Reporting Units....: mg/L

Report Basis.....: ☒ As Received ☐ Dried

CL Preparation Group: Not Applicable

Date Prepared.....: 18-MAY-98 00:00

Preparation Method....: Not Applicable

Aliquot Weight/Volume: 200 mL

Net Weight/Volume....: Not Required

DCL Analysis Group: G984V012

Analysis Method....: 160.2

Instrument Type....: PP

Instrument ID.....: GRAV

Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	MDL	Result	Comment	Qual.	Dilution	CRDL
Total Suspended Solids	18-MAY-98 00:00	4.	ND		US	1	4.

Reason 106

dc 7-21-98

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